

REMARKS

Claims 1, 2, 4, 5, 7-9, 17 and 18 remain pending in this application. The limitations of claims 3 and 6 have been incorporated into claim 1, and, as such, claims 3 and 6 have been cancelled without prejudice or disclaimer. Applicant confirms the election of claims 1-9, 17 and 18, and hereby cancels non-elected claims 10-16 without prejudice or disclaimer.

Claims 7, 17 and 18 have been amended to overcome the objections thereto set forth paragraph 7 of the Office Action. Accordingly, the objections to these claims is now moot and should be withdrawn.

Applicant respectfully traverses the rejection of claims 1, 2, 7 and 8 under 35 USC §102(b) as being anticipated by German Patent Application DE19916010 (Martin Stadlmeier). The present invention pertains to a cooling without any mechanical tensions due to spring effects of a heat conducting member (HCM) when being pressed. Therefore, a force fitting is recited in the claims of the present invention which allows for plastically deforming the HCM. The advantage of such an invention is that the HCM exactly fits between the electronic component and the top side of the printed circuit board to be cooled and a cooler at the bottom side of the PCB. This is recited in cancelled claim 6.

Claim 1 has been amended to include the limitations of claim 6 which include, inter alia, that the HCM comprises a substantially planar, disc-shaped top portion and tapered or recessed, ring-shaped bottom portion, wherein the top portion is thermally coupled with the electronic component, and wherein the bottom portion has a final shape resulting from plastically deforming an origin shape of the bottom portion by pressing the HCM substantially perpendicular to the top portion via a planar pressing tools. As the limitations of claim 6 are neither described nor suggested by DE 19916010, the rejection of claims 1, 2, 7 and 8 is moot and should be withdrawn. That is, DE 19916010 neither describes nor suggests a HCM based on spring effects, i.e., the HCM of Stadlmeier is not plastically deformed; cf. Fig. 2, and the description on col. 2,

lines 41-48. Moreover, on col. 1, lines 40-46, Stadlmeier states that in the prior art plastically deformable adhesive is used. However, it is obvious that such adhesives are not being force fitted and does not have a planar top portion and a tapered or recessed bottom portion.

Applicant respectfully traverses the rejection of claims 4, 5, 9, 17 and 18 under 35 USC §103(a) as being unpatentable over Stadlmeier as applied to claim 3 and further in view of Azar (U.S. Patent No. 5,920,458). In this regard Azar teaches a heat dissipation member 26 which includes a thermally conductive post 28 which is secured at one of the member 26 and extends through an aperture 24 to the first side of a circuit board 12. Contrary to the present invention has recited in claim 1, as amended, the heat dissipation member 26 is not inserted into the through-hole of a printed circuit board. Rather, Azar only discloses that post 28 is inserted into an aperture 24 of the printed circuit board. Claim 1 of the present invention has been amended to recite that "the HCM comprising a substantially planar, disc-shaped top portion and tapered or recessed, ring-shaped bottom portion, wherein said top portion is thermally coupled with said electronic component, and wherein the bottom portion has a final shape resulting from plastically deforming an origin shape of the bottom portion by pressing the HCM substantially perpendicular to the top portion via a planar pressing tools. Neither Stadlmeier nor Azar describe or suggest a bottom portion of an HCM having a final shape resulting from plastically deforming of an original shape of the bottom portion by pressing the HCM substantially perpendicular to the top portion. In this regard, Azar does not have any deformation of the bottom portion 26 nor the post 28.

Accordingly, neither Stadlmeier nor Azar, either alone or in combination, describe or suggest that which is recited in the claims, as amended.

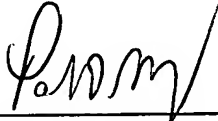
Applicant respectfully traverses the rejection of claims 1, 2 and 7-9 under 35 USC 103(a) as being unpatentable over Azar in view of Schneider (US Patent No. 5,173,301). Both Azar and Schneider relates to a non-deformable post affixed to a heat dissipation member or base. Accordingly, neither Azar

nor Schneider, either alone or in combination, describe or suggest a bottom portion having a final shape resulting from plastically deforming an origin shape of the bottom portion by pressing the HCM substantially perpendicular to the top portion, as recited in claim 1 of the present invention.

Based upon the aforementioned amendments to the claims and remarks above, Applicant respectfully requests reconsideration and allowance of all of the claims presently in the application.

Respectfully submitted,

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Date



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